Physics and Astrophysics of Neutron Stars – Day 1
Monday - July 18

7:30-8:30 Breakfast

9:15   Introduction – Reddy & Fryer

Equation of State Effects and Neutrino Physics

9:30 Chuck Horowitz – Neutron Rich Matter below Nuclear Density and Neutrino Interactions
10:00 Andrew Steiner - The equation of state of matter in supernovae
10:30 Achim Schwenk - More on the virial equation of state and matter effects on two-nucleon reactions
11:00 Discussion

11:30 Lunch

1:30 Ray Sawyer (UCSB) - Not again! The ionic density correlators and neutrino opacities for the true multi-component plasma
2:00 Giovanni Lapenta (LANL) – Analysis of non-Maxwellian fusion reaction rates with electron scattering
2:30 Shannon Cowell – Two-body weak interactions in nucleon matter
3:00 Discussion

3:30 Break

4:00 Emma Olsson
4:30 Doron Gazit – Ab-initio Calculation of Neutrino Neutral Reaction on ^{4}He
5:00 Monika Sinha (Presidency College) – Incompressibility and Skin Vibrations in Strange Stars
5:30 Discussion

6:00 Dinner – On Your Own

Physics and Astrophysics of Neutron Stars – Day 2
Tuesday – July 19

7:30-8:30 Breakfast

Neutrino Physics and Neutrino Nucleosynthesis

8:30 George Fuller
9:00 Cecilia Lunardini (INT) – The diffuse supernova neutrino flux: sensitivity goals of future searches
9:30 Phil Amanik – Simulating Neutrino Flavor Changing Neutral Currents in Stellar Collapse
10:00 Discussion

10:30 Break

11:00 Alex Kusenko - Supernova asymmetries as a probe of dark matter and other weakly interacting particles
11:30 Ina Sarcevic (U Arizona) – Mini Z'Burst from Relic Supernova Neutrinos and Late Neutrino Mass
12:00 Danny Marfatia
12:30 Discussion

1:00 Lunch

2:30 Alex Heger (LANL) - Neutrino Nucleosynthesis in the Envelope of Core Collapse Supernovae
3:00 Carla Frohlich
3:30 Yong-Zhong Qian
4:00 Discussion

4:30 Break

5:00 Gail Mclaughlin
5:30 Nikolaj Zinner (Univ. of Aarhus) – Neutrino-Induced Reactions for r-Process Nucleosynthesis
6:00 Discussion

6:30 Dinner – On Your Own

Physics and Astrophysics of Neutron Stars – Day 3
Wednesday – July 20

7:30-8:30 Breakfast

Supernovae

8:30 Adam Burrows (Univ. Arizona) – Multi-Dimensional Core-Collapse and Supernova Simulations
9:00 Jeremiah Murphy (Univ Arizona) - On the Asphericity of Core-Collapse Supernova Shocks
9:30 Luc Dessart (Univ. Arizona) - Quantitative spectroscopy of photospheric-phase supernovae
10:00 Discussion

10:30 Break

11:00 Aristotle Socrates
11:30 Thierry Foglizzo (CEA-Saclay) - Asymmetric explosion: disentangling the convective and the vortical-acoustic instabilities
12:00 Discussion

12:30 Lunch

Afternoon – On Your Own
   Suggestions – Downtown Santa Fe: Georgia O'Keefe Museum, etc.
                    - Bandelier National Monument (contact Fryer if interested)

Physics and Astrophysics of Neutron Stars – Day 4

Supernovae and Transport

8:30 Matthias Liebendorfer (CITA)- Parameterizaed weak interactions in three-dimensional simulations of core collapse with magnetic fields
9:00 Bronsson Messer (U Chicago) - The Impact of Nuclear Electron Capture on Core Collapse and Shock Propagation
9:30 Ivan Hubeny (U Arizona) - New algorithm for 2-D neutrino transport for Core-collapse simulations
10:00 Discussion

10:30 Break

11:00 Jim Wilson (LLNL) - Neutrino oscillations and the r-process
11:30 Stirling Colgate
12:00 Discussion

12:30 Lunch

2:00 Todd Urbatsch
2:30 Jeff Densemore (LANL) - Discrete Diffusion Monte Carlo for Grey Implicit Monte Carlo Simulations

3:00 Break

3:30 Aimee Hungerford
4:00 Kent Budge
4:30 Discussion

6:30 Banquet in honor of Stirling Colgate

Physics and Astrophysics of Neutron Stars – Day 5
Friday – July 22

7:30-8:30 Breakfast

Supernovae and Transport
8:30 Christian Cardall
9:00 Eric Lentz – Simultaneous Conservation of Neutrino Number and Energy
9:30 Alex Razoumov (ORNL) – Full transport on adaptive meshes: from supernovae to cosmology
10:00 Discussion

10:30 Break

11:00 Doug Swesty – Multi-Dimensional Multi-Group Models of Post-Bounce Convection
11:30 Eric Myra - 2-D Multigroup Flux-Limited Diffusion Models of Core Collapse Supernovae: Numerical Methods
12:00 Discussion

12:30 Lunch and dash to airport